

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

New claims 57-61 have been added.

This amendment adds, changes and/or deletes claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-7 and 17-61 are now pending in this application.

Rejections under 35 U.S.C. § 103

Claims 1, 4, 6, 7, 19-23, 26, 31-36, 39, 44-46, 50-56 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,538,676 (hereafter “Bielfeldt”) in view of U.S. Patent No. 3,915,075 (hereafter “Luke”) and U.S. Patent No. 4,933,125 (hereafter “Reiniger”). This rejection is respectfully traversed.

The Office Action asserts that these patents teach certain features or limitations. In this reply, to conserve the resources of applicant and the Office, applicant chooses to focus on Luke (and Bielfeldt as it relates to Luke), and certain features of Bielfeldt. Applicant’s silence on the other alleged teachings of the prior art should not be construed as acquiescence.

Independent claims 1, 19, and 31 require among other things a metal mesh belt that “comprises a material having a thermal conductivity considerably higher than that of the corresponding steel belt.” Page 3 of the December Final Office Action noted that Bielfeldt does not satisfy that requirement. In the very words of the Office Action, “Bielfeldt does not show a specific material for his metal mesh belt which has a thermal conductivity considerably higher than that of the corresponding steel belt.” *Id.* (emphasis in original).

The Final Office Action relied on Luke for that showing, in reply to which the applicant urged that Luke is not properly combinable with Bielfeldt. The subsequent July 2007 Advisory Action twice stated on page 2 that “Luke was only cited to show the use of a specific metal mesh belt for use as Bielfeldt’s metal mesh belt.” Id. at paragraphs I(A) & I(B)(3). In addition, the Advisory Action acknowledged applicant’s assertion that Luke’s copper mesh belt lacks the necessary hardness to be used in the apparatus of Bielfeldt, but then stated that “[t]his is not persuasive because there is no evidence to support this assertion.” Id. at I(B)(3).

Applicant respectfully submits that supporting evidence accompanies this reply. As discussed in the attached Declaration from Friedrich Bielfeldt (the named inventor of the Bielfeldt reference), one of ordinary skill in the art would understand that a copper wire mesh belt “would lack the hardness necessary for use in a double belt press, such as the one disclosed by Bielfeldt.” Id., para 8. Mr. Bielfeldt further declares that the wire mesh belt of Luke “would not be able to withstand this environment [of Bielfeldt] because of its low hardness.” Id. Therefore, applicant’s “hardness” assertion is supported by evidence.

Mr. Bielfeldt goes on to explain that one of ordinary skill in the art would not have looked to the teachings of Luke when considering prior art for the continuous manufacture of wood material boards because of the differences between Bielfeldt and Luke. As discussed in the attached Declaration, the process of Luke is used to make a plastic rod, not a wood material board. The wire-mesh belt of Luke, which can be used in place of tube 20a, is used to cool manufactured material, not heat this material. Nor would the wire-mesh belt of Luke be able to withstand the environment of Bielfeldt in which the belt 2 of Bielfeldt is pressed between the press ram 12 and press table 13. Because of the differences in structure and purpose between a process of continuously manufacturing wood material boards and the process of Luke, one of ordinary skill in the art would not have looked to the teachings of Luke. Therefore, it would not have been obvious to combine the teachings of Luke with the teachings of Bielfeldt.

Next, independent claims 1 and 19 (and claim 31’s dependent claim 33) each also require that “the metal mesh belt and the corresponding steel belt are configured to pass

through an insulating tunnel, in a return run, to reduce heat loss by thermal radiation,” with claim 19 further requiring that the belts pass “simultaneously” through the insulating tunnel.

Bielfeldt discloses a process for the continuous production of particleboards that includes a woven metal wire belt 2, a preheating zone 8, a continuously operating press 1 that includes a movable press ram 12 and fixed press table 13, and a covering hood 11 arranged in the preheating zone 8. See Bielfeldt at col. 4, lines 16-35.

The Office argues on page 3 of the Final Office Action that the press ram 12 and the press table 13 form an insulating tunnel. However, the press ram 12 and the press table 13 of Bielfeldt are not arranged so that “the metal mesh belt and the corresponding steel belt are configured to pass through an insulating tunnel, in a return run, to reduce heat loss by thermal radiation” because the press ram 12 and the press table 13 are not arranged so that a metal mesh belt and corresponding steel belts pass between them on a return run. As shown in Figure 1 of Bielfeldt, such belts would pass between the press ram 12 and the press table 13 on a forward run as the wood material is pressed between the ram and table.

In the response section on page 17 of the Final Office Action the Office refers to col. 4, lines 29-32, of Bielfeldt, asserting that Bielfeldt discloses an insulating tunnel. However, this passage only discusses the preheating zone 8 and the covering hood 11 of Bielfeldt. This passage contradicts the position set forth by the Office in the rejection. Furthermore, the preheating zone 8 and covering hood 11 of Bielfeldt are not arranged so that a metal mesh belt and corresponding steel belts pass between them on a return run. Therefore, Bielfeldt does not disclose or suggest a method “wherein the metal mesh belt and the corresponding steel belt are configured to pass through an insulating tunnel, in a return run, to reduce heat loss by thermal radiation.” For at least this additional reason, the rejection of claims 1, 19 and 33 (along with their respective dependent claims) should be withdrawn.

Next, independent claim 1 and dependent claims 22 and 35 each also require that “the metal mesh belt is configured to pass through a heating tunnel, which is separated from the corresponding steel belt, wherein the heating tunnel is configured to heat the metal mesh belt

to a temperature that is higher than a temperature of the corresponding steel belt by at least 40°C.”

The Office argues on pages 3 and 17 of the Final Office Action and in the Advisory Action dated July 12, 2007 that the steel belts 6, 14 of Bielfeldt would not be heated and therefore there would be 40°C temperature difference between the heated belt 2 and the belts 6, 14 of Bielfeldt. However, as discussed at paragraph 11 in the attached Declaration from Friedrich Bielfeldt, belts 6 and 14 of Bielfeldt would be heated because they come into direct contact with heated press ram 12 and press table 13. See Bielfeldt at col. 4, lines 34-39. The Bielfeldt reference also discloses that press platens are heated in col. 1, lines 7-14, 43-53, 57-61, and in the abstract. Because of this contact with heated press platens, the belts 6 and 14 of Bielfeldt would not be unheated, as asserted by the Office. Applicant respectfully submits that Bielfeldt does not disclose or suggest a method “wherein the heating tunnel is configured to heat the metal mesh belt to a temperature that is higher than a temperature of the corresponding steel belt by at least 40°C.” For this additional reason, the rejection of claims 1, 22, and 35, along with their respective dependent claims, should be withdrawn.

Luke discloses an apparatus for making plastic rods, such as a rod for tobacco-smoke filtering material. See Luke at col. 1, lines 6-9. Luke discloses that a rod 13 is extruded from a die 20, conducted through a tube 20a made of a high thermal conductivity material, and introduced between a belt 1 and a tape 12 that wraps around the rod 13. See Luke at col. 2, line 27, to col. 3, line 3. Luke discloses that the belt 1 can be made of rubber and that instead of a tube 20a a wire-mesh belt of high conductivity material can be provided. See Luke at col. 2, lines 31-37; col. 3, lines 3-4.

Nor does Luke disclose or suggest a metal mesh belt that is arranged “wherein the metal mesh belt texturizes a surface of the mat,” as recited in claim 31. Luke does not disclose or suggest that the wire-mesh belt imprints a textured surface. In fact, Luke teaches that the plastic rod should be guided without damage or deformation. See claim 1 of Luke.

Furthermore, in response to Applicant’s previous arguments, the Office asserts in the Advisory Action that the Office cited prior art references for certain teachings but not other

teachings also disclosed by the same prior art references. For example, the Office argues in the Advisory Action that Luke was not cited to show surface alteration, such as texturing, even though Luke teaches away from surface alteration. However, prior art must be considered in its entirety, including disclosures that teach away from the claims. See M.P.E.P. § 2141.02, Part VI. Therefore, the Office must consider the teachings of the prior art, such as Luke, in their entirety, including those disclosure that teach away from the claims.

Reiniger discloses a process for making cellulose-containing products that includes a conveyor belt 22, a pressure shoe 32, a suction box 34, conveyor belt 42, and press reactor 10 that includes an upper die 46 and a lower die 48. See Reiniger at col. 7, lines 40-68; col. 8, lines 6-26. However, Reiniger fails to remedy the deficiencies of Bielfeldt and Luke disclosed above.

It would not have been obvious to combine the teachings of Bielfeldt, Luke and Reiniger to provide the methods of claims 1, 19, and 31. A basic requirement of a *prima facie* case of obviousness is that a prior art reference, or prior art references when combined, must teach or suggest all of the claim limitations. See M.P.E.P. §§ 2143, 2143.03. Bielfeldt, Luke, and Reiniger do not disclose or suggest the claimed subject matter as a whole of claims 1, 19, and 31. Furthermore, one of ordinary skill would not have looked to the teachings of Luke.

For at least the reasons discussed above, withdrawal of this rejection is respectfully requested.

Claims 2, 3, 5, 18, 24, 25, 27, 28, 30, 37, 38, 40, 41, and 43 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bielfeldt, Luke, and Reiniger as applied to claim 1 above, and further in view of U.S. Patent No. 5,762,980 (“Bielfeldt ‘980”). The Office noted in the Advisory Action dated July 12, 2007 that Luke, not Beck, should be properly cited in this rejection. This rejection is respectfully traversed. Bielfeldt ‘980 fails to remedy the deficiencies of Bielfeldt, Luke, and Reiniger discussed above in regard to independent claims 1, 19, and 31, from which claims 2, 3, 5, 18, 24, 25, 27, 28, 30, 37, 38, 40, 41, and 43 depend. Withdrawal of this rejection is respectfully requested.

Claims 17, 29, and 42 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bielfeldt, Luke, and Reiniger, and further in view of the Background section of the specification. This rejection is respectfully traversed. The Background section of the specification fails to remedy the deficiencies of Bielfeldt, Luke, and Reiniger discussed above in regard to independent claims 1, 19, and 31, from which claims 17, 29, and 42 depend. Withdrawal of this rejection is respectfully requested.

Claims 47-49 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Bielfeldt, Luke, Reiniger, and the Background section of the specification, further in view of U.S. Patent No. 3,007,320 (“Henkel”). This rejection is respectfully traversed. Henkel fails to remedy the deficiencies of Bielfeldt, Luke, Reiniger, and the Background section of the specification discussed above in regard to independent claims 1, 19, and 31, from which claims 47-49 depend. Withdrawal of this rejection is respectfully requested.

New Claims

New claims 57-61 have been added. Claims 57 and 58 depend from claim 1, claims 59 and 60 depend from claim 19, and claim 61 depends from claim 31. Applicant respectfully submits that claims 57-61 are allowable over the prior art for at least the reasons discussed above.

Applicant submits that the present application is now in condition for allowance. Favorable reconsideration of the application as amended is respectfully requested.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are

needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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